

Audit of HIV-post exposure prophylaxis at the Mater Misericordiae University Hospital, Dublin, in 2022



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Background & Aims

HIV post-exposure prophylaxis is the provision of antiretroviral therapy (ART) to prevent infection in individuals with recent (<72 hours) potential exposure to the virus.

This audit aimed to identify whether HIV post-exposure prophylaxis (PEP) prescribing at the Mater Hospital (MMUH) is in line with national guidelines (Emergency Medicine Ireland (EMI) 2018). Updated guidelines were published in March 2024, after completion of this audit.

Methods

All patients dispensed PEP during 2022 were identified from ID pharmacy records. Data was collected from electronic health records and analysed with Microsoft Excel.

Conclusion

PEP is commonly prescribed, predominantly to young people with sexual or needlestick exposures, via the ED.

Baseline testing for HIV and Hepatitis B was reasonable at 91% and 81%, respectively; STI testing rates at time of presentation were low (9%).

The vast majority are prescribed TDF/FTC with RAL. No seroconversion was documented for this cohort during the follow-up period.

The large number of young men prescribed PEP in ED following sexual exposure, highlights the need for increasing capacity of and access to PrEP services.

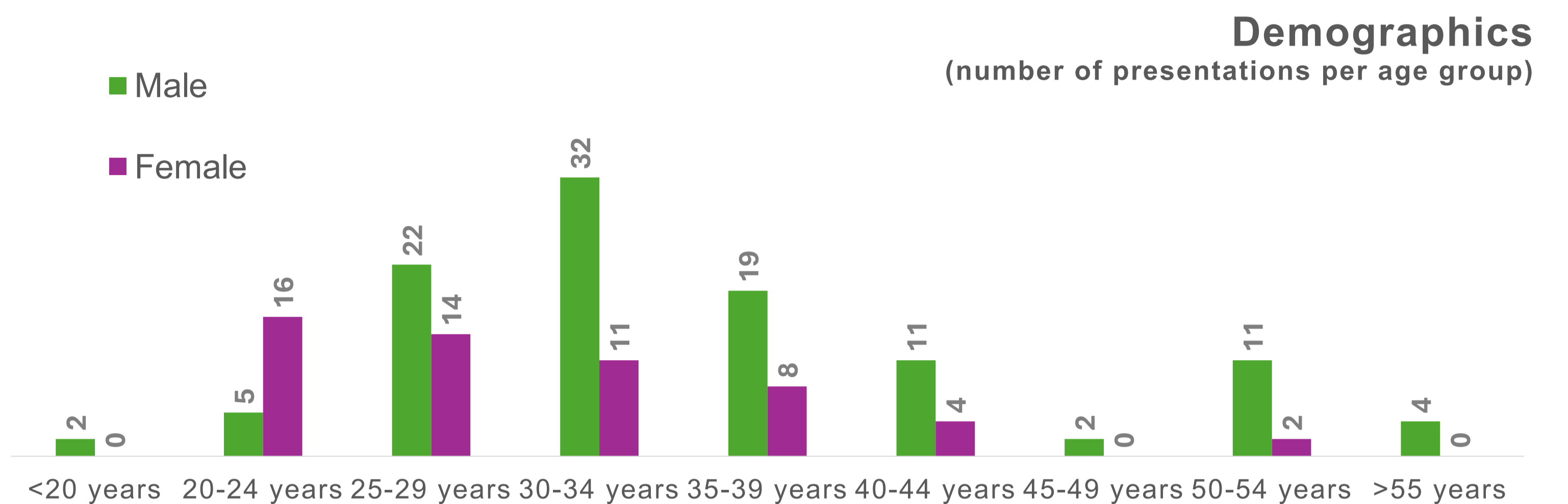
Although there was paucity of data on exposure details in many cases, guideline adherence in terms of indication for and timing of PEP provision was high.

Our follow-up data was incomplete in many cases, highlighting the need for introducing electronic patient records to improve patient safety, decrease healthcare staff workload and facilitate ongoing audits for service improvement

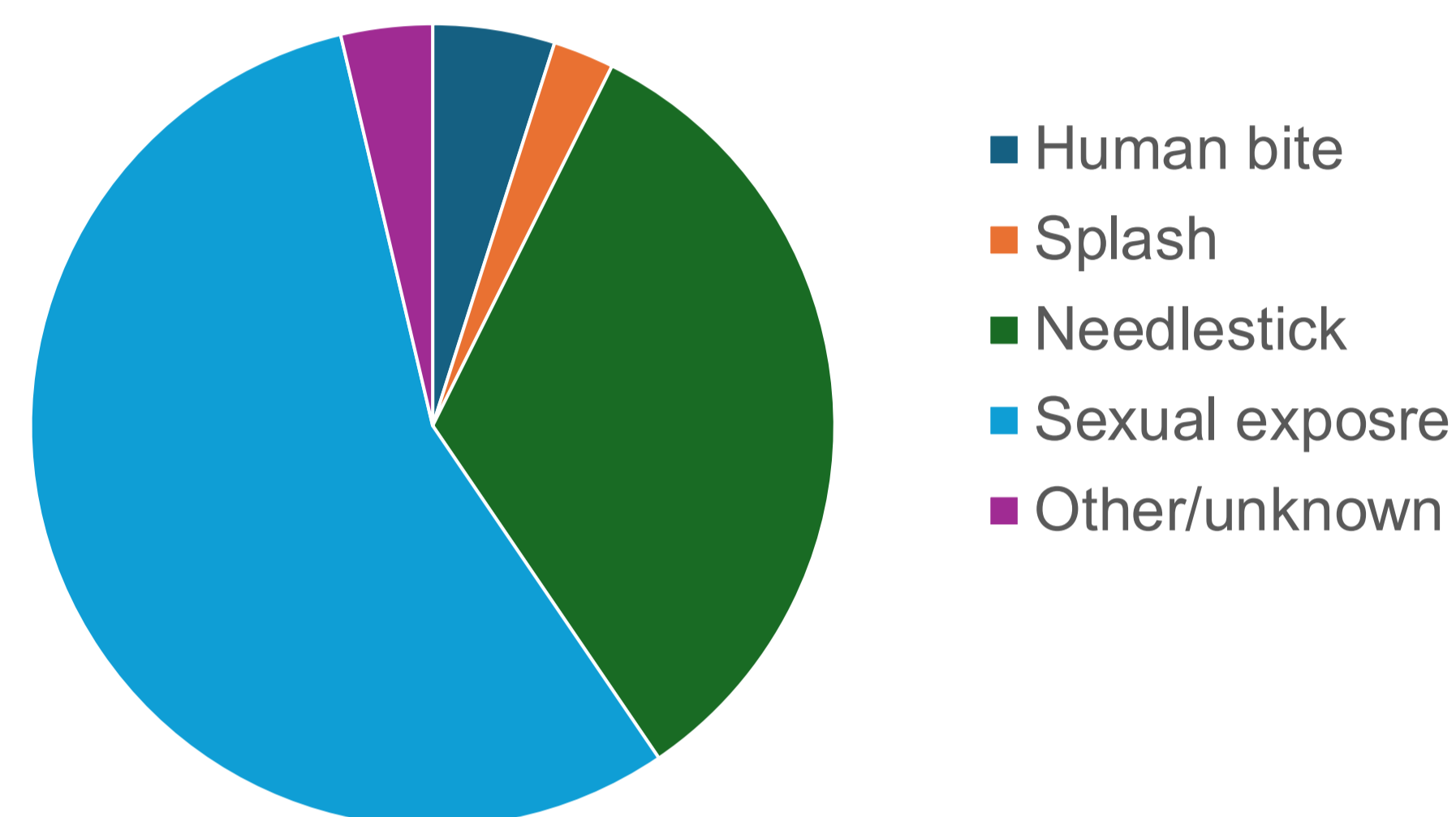
Results

A total of 203 patients were dispensed PEP in the MMUH; 163 (80.3%) of whom had sufficient data to be included in analysis on electronic records reviewed.

Most patients were male (108; 66.3%), and the median age was 32, ranging from 17 to 60 years (IQR 28-28 years). Female presentations are more common among the younger and steadily decline with increasing age, while males present most commonly at 30-34 years of age, with a second smaller peak seen in those over 50 years.



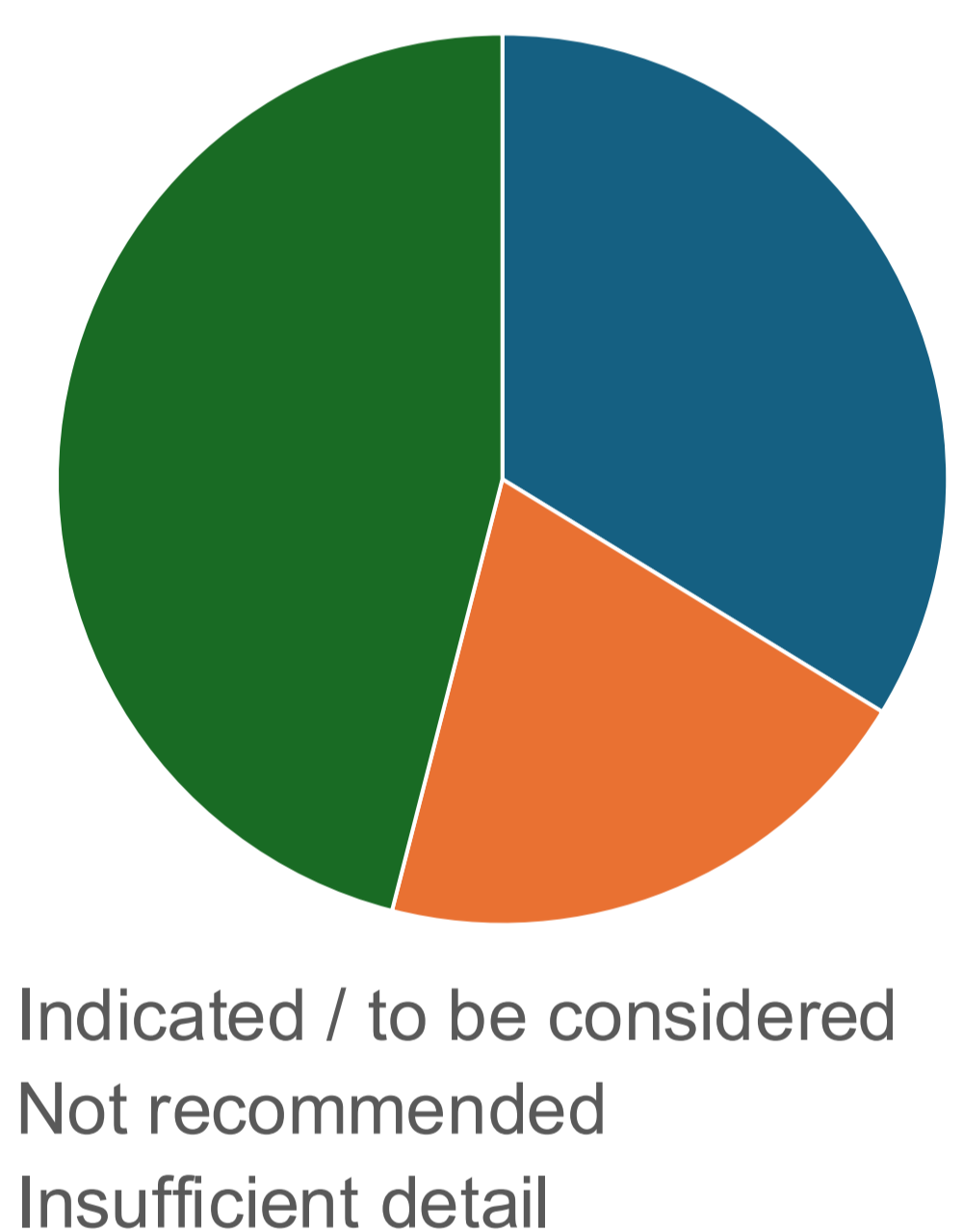
Exposure leading to presentation



Initial presentation was to the Emergency Department (ED) in most cases (136; 83%), with 6% (9 patients) through the Sexual Assault and Trauma Unit (SATU).

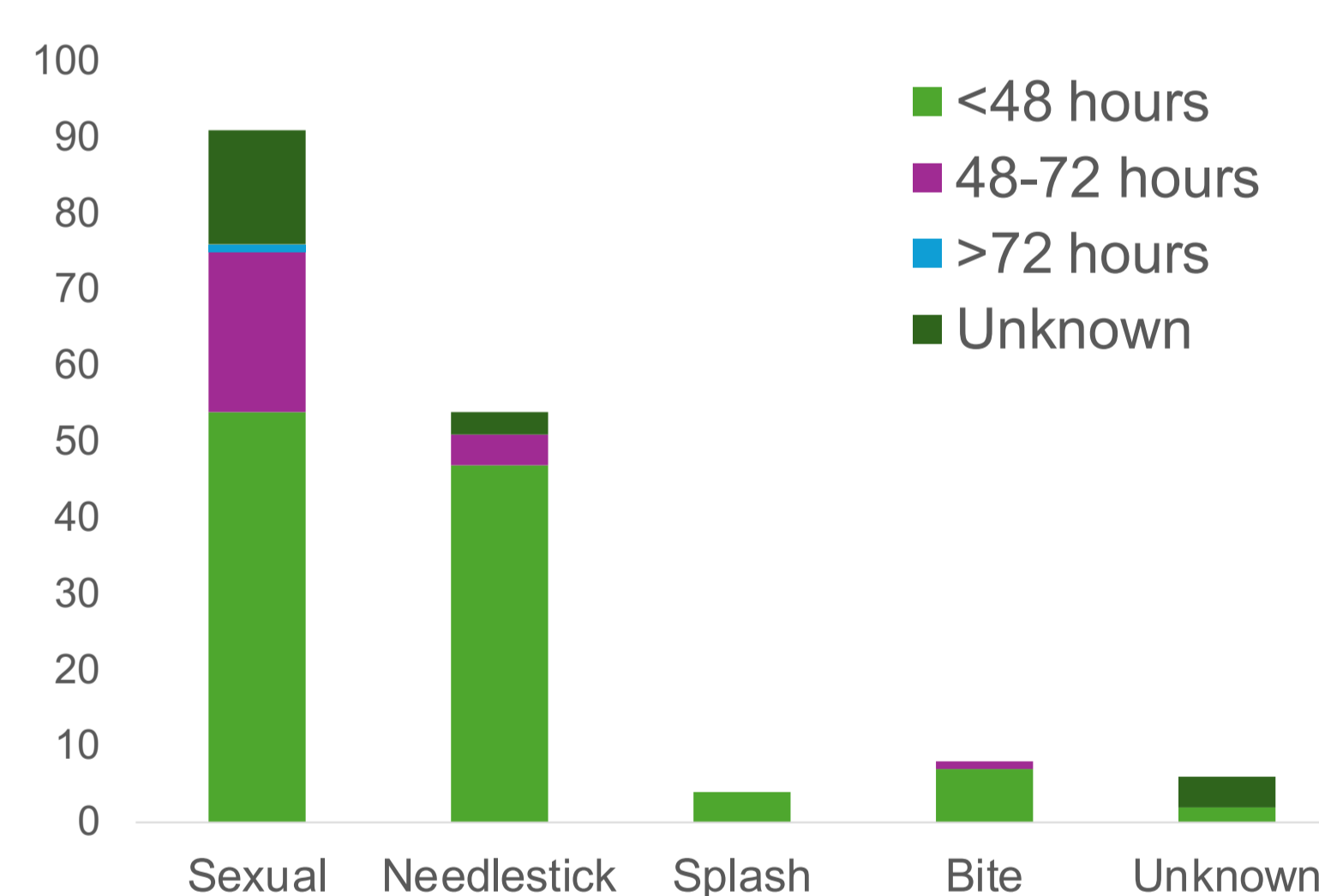
Most patients presented after sexual exposure (91, 56%), needlestick injuries were the next most common (54 cases; 33%). Human bites and splash exposure to bodily fluids made up 5% and 2% (8 and 4 cases) of presentations.

Documented indications compared to guidelines



When comparing documented indications to the Irish guidelines, a paucity of electronic data was evident. In 37 cases (23%) PEP was indicated, in 18 cases (11%) PEP to be considered according to guidelines. In 75 cases (46%), insufficient data was available on electronic records to review appropriateness. In 33 cases (20%) PEP would not have been recommended based on the documented indication.

Time to presentation by exposure category



Most of the patients presented within 48 hours of exposure (113, 69%), and 16% (26 patients) within 48-72 hours. One person presented outside the 72-hour window, while time of exposure was unclear in 14% (23 patients)

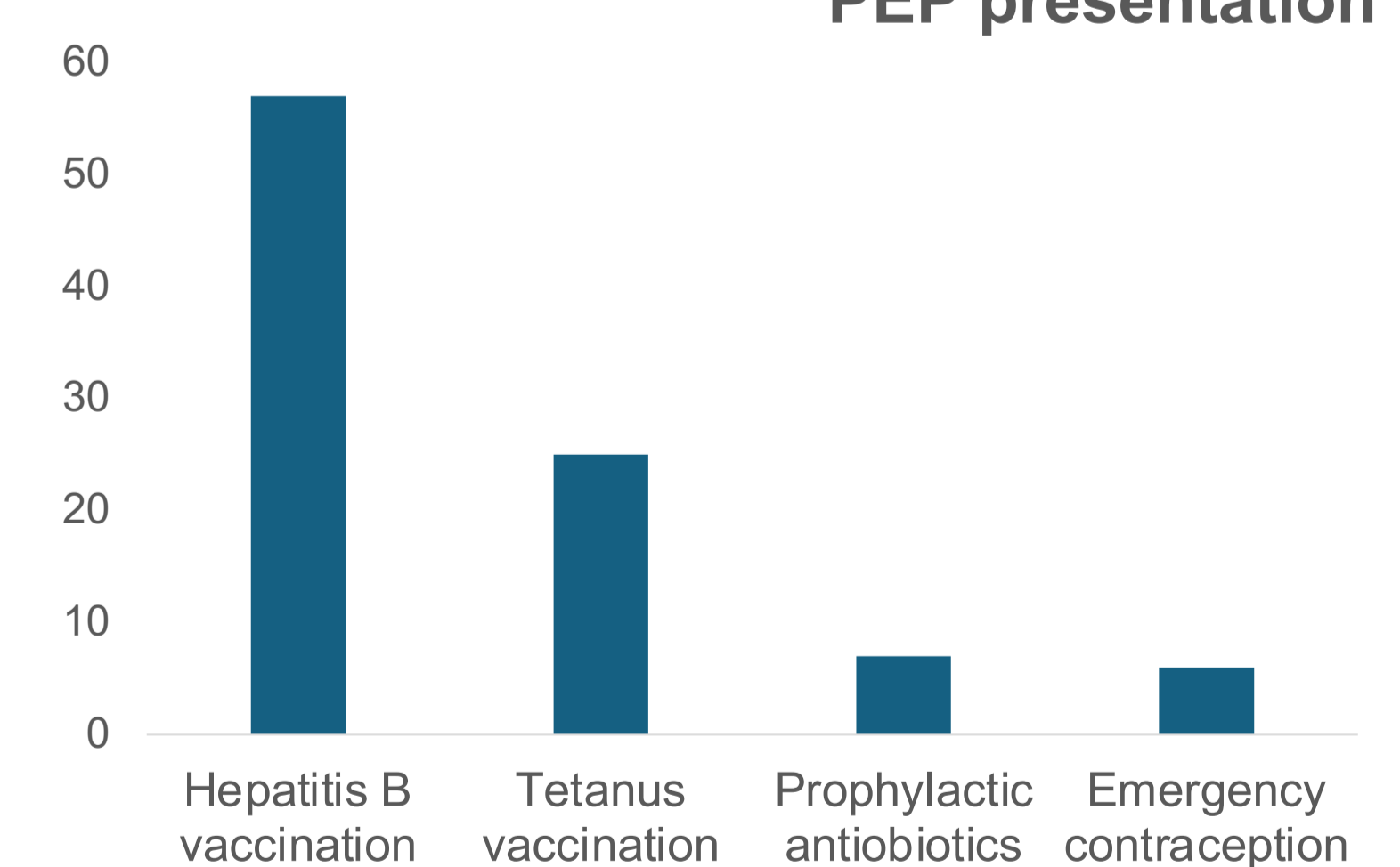
All except one patient were prescribed Tenofovir disoproxil/Emtricitabine (TDF/FTC) and Raltegravir, one person received TDF/FTC plus Dolutegravir.

HIV testing at initial presentation was completed in 91% (148 patients), while hepatitis B serology was sent in 81% (132 patients). Of those presenting after sexual exposure, 9% had a baseline STI screen.

Other prophylactic interventions at time of presentation for PEP included hepatitis B vaccination (in 57 cases; 33%), tetanus vaccine (25 patients; 15%), post-bite prophylactic antibiotics (7 patients; 4%), and emergency contraception (6 patients; 4%).

No seroconversions were documented in this cohort in 2022. Thirteen patients (8%) were documented to have been referred to PrEP services following PEP prescription.

Prophylactic interventions at PEP presentation



KEY MESSAGES

- PEP is prescribed commonly, mostly to young people, predominantly for sexual and needlestick exposures
- Baseline STI testing could be improved in sexual exposures
- Many patients were lost to follow-up
- Starter pack in ED and simple referral to specialist services are important
- Many PEP presentations could be avoided with widening access to PrEP
- Recent guideline updates apply more stringent criteria – many of the above may not qualify, particularly in the sexual exposure group
- Education of the public regarding the indications for PEP may reduce presentations to ED and the cost incurred
- Full electronic records are needed

References

1. Guidelines for the Emergency Management of Injuries and Post-Exposure Prophylaxis (PEP), HIV PEP updated June 2018 (<https://www.drugsandalcohol.ie/29824/1/EMIToolkit.pdf>)
2. Guidelines for the Emergency Management of Injuries and Post-Exposure Prophylaxis (PEP), Version 1.0, 5th March 2024, HSE Public Health, National Health Protection Office (<https://www.hpsc.ie/a-z/emi/EMIGuidelinesPeP.pdf>)